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10/757,651	01/14/2004	Achim Kraiss	13906-165001 / 2003P00822	3935
32864 7590 01/10/2008 FISH & RICHARDSON, P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER SILVER, DAVID	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

AK

Office Action Summary	Application No.		Applicant(s)	
	10/757,651		KRAISS, ACHIM	
	Examiner		Art Unit	
	David Silver		2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-7,11,12,14 and 20-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-7,11,12,14 and 20-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The Instant Office Action is in response to a Request for Continued Examination filed 10/17/2007.
2. Claims 1-21 were originally presented for examination.
3. Claims 1-21 were rejected.
4. Claims 1, 3, 5-7, 11, 12, 14 and 20-31 are currently pending in Instant Application.

Priority

5. Priority is not claimed (**Effective Filing: 01/14/2004**).

Response to Arguments

Response: Drawings

6. Applicants argue:

- 6.1 Applicants generally argue that Fig 3 does not equate to claim 21.
- 6.2 "The Applicant also noted that the novel prediction engine illustrated in figure 3 is, in some embodiments, capable of performing the novel method described in claim 21, thus figure 3 illustrates novel, non-obvious, and useful subject matter and does not show prior art.
- 6.3 "Pointing out that in some embodiments a novel prediction engine can perform a novel method is a far cry from stating that the novel prediction engine illustrated in figure 3 is equivalent to the novel computer readable-medium disclosed in claim 21." (Remarks: page 8)

7. Examiner Response:

- 7.1 As per subsection 1 *supra*, to not belabor the issue the following summary is provided:

Figure 3 illustrates an interconnected Processor (300), Memory (302), Input/Output Device (306), and Storage Device (304). PGPUB Spec (**para 0031**) recites:

"FIG. 3 is a block diagram of one embodiment of the prediction engine 104 shown in FIG. 1. In this embodiment, the prediction engine 104 includes a processor 300, a memory 302, a storage device 304, and an input/output device 306."

It is evident, even from the cited portion above, that the elements demonstrated in Fig 3 are included within the allegedly novel prediction engine. Meaning the prior-art illustrated in Fig. 3 is part of an embodiment, not the embodiment itself. The elements of Figure 3 are not novel, neither as disclosed, nor

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as illustrated.

7.2 As per subsection 2 *supra*, after reviewing Fig 3, the argued "prediction engine" is not found among the total of four (4) elements in Fig 3, which consists of: (1) Processor, (2) Memory, (3) Input/Output Device, and (4) Storage Device. Further clarification is requested.

7.3 Regarding subsection 3 *supra*, the equating was done in response to Applicants' Remarks (**dated 3/05/2007 page 6: "As described below, claim 21 is directed to patentable subject matter, and therefore Figure 3, [...], shows novel, non-obvious and useful subject matter."**) which implicitly equated Fig 3 and claim 21.

Objection **maintained**.

Response: 35 U.S.C. § 112 P1

8. Applicants' arguments regarding the 35 U.S.C. § 112 first paragraph rejection have been fully considered and persuasive. However, attention is drawn to newly presented 35 U.S.C. § 112 second paragraph rejections below.

Response: 35 U.S.C. § 102 - based on Wikipedia's "Computer Hardware"

9. **Examiner Response:**

Rejection has been withdrawn in view of appropriate claim amendments which overcome the cited prior-art.

Response: 35 U.S.C. § 102 - Based on Tinsley / Tamayo

10. **Applicants state:**

Applicants generally summarize Tinsley / Tamayo (**Remarks: page 11 bottom / page 12 bottom, respectively**).

10.1 Regarding claim 1 and dependents, Applicants provides a general conclusionary statement which recites limitations 2 through 7 of claim 1 as arguments for Tinsley / Tamayo (**Remarks: page 15 top / page 13 top**).

10.2 Regarding claims 21, 22, and 27 and dependents in view of Tinsley, Applicants provide a general

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conclusionary statement which recites the limitations of the respective claims. (Remarks: page 12 middle)

10.3 Regarding claims 14 and 21 and dependents in view of Tamayo, Applicants provide a general conclusionary statement which recites claim 14. **(Remarks: page 13 middle).**

11. Examiner Response:

Applicant's arguments merely provide a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Rejection in view of Tinsley has been withdrawn as being cumulative to the art applied.

Response: 35 U.S.C. § 101

12. Applicants argue:

"Amended claims 1 and 21 include an "application system." The term "application system" can include various engines and repositories for storing information. (See specification at page 3, lines 14-16). As noted in a prior response, a repository is a hardware element. The Examiner contends that because "application system" was allegedly not defined with clarity, it should be given its ordinary meaning in the art, a program (Office Action, page 5). As noted above, "application system" has been defined with sufficient clarity, thus "application system" should be accorded its specification definition, which, in some embodiments, includes a repository, a hardware element. Accordingly, Applicant submits that claims 1 and 21 are directed to statutory subject matter, and asks that the non- statutory subject matter rejections for claims 1 and 21 be removed.

13. Examiner Response:

MPEP 2111.04 recites, in part:

Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure.

MPEP 2106 recites, in part:

[A]a claim that can be read so broadly as to include statutory and nonstatutory subject matter must be amended to limit the claim to a practical application. In other words, if the specification discloses a practical application of a section 101 judicial exception, but the claim is broader than the disclosure such that it does not require a practical application, then the claim must be rejected.

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The cited portion of the Specification recites:

In one embodiment, the application system 102 may also include various engines and repositories used for collecting and storing information [...]. (**Spec: page 3 lines 14-15**)

It is clear that the inclusion of the repositories is not necessitated because of the broad language "may".

See MPEP 2111.04, partially cited above.

The Specification discloses that the application system may (but does not necessarily) include a repository; therefore, in view of MPEP 2111.04 and 2106 (cited above) the claims remain drawn to non-statutory subject matter.

Claim Objections

MPEP 608.01(k) recites:

Each claim begins with a capital letter and ends with a period. Periods may not be used elsewhere in the claims except for abbreviations. See *Fressola v. Manbeck*, 36 USPQ2d 1211 (D.D.C. 1995).

14. Claim 14 is objected-to for failing to comply with USPTO guidelines for claim formation. Specifically, see MPEP citation *supra*, and note the period in step (f).

Drawings

15. Figure 3 should be designated as --Prior Art-- because only that which is old is illustrated **(interconnected processor, memory, I/O device, storage device)**. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

16. Claims 1, 3, 5-7, 11, 12, 14 and 20-31 are rejected under 35 U.S.C. 101 because the claimed

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invention is directed to non-statutory subject matter.

MPEP 2106 recites, in part:

"...USPTO personnel shall review the claim to determine it produces a useful, tangible, and concrete result. In making this determination, the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but rather on whether the *final* result achieved by the claimed invention is "useful, tangible, and concrete." (emphasis added)

- 16.1 The method claims do not produce a useful, tangible, and concrete final result. The steps of the method claims do not produce a useful, tangible, and concrete result. They merely recite a software algorithm, per se, which, for example, does not display, store, or otherwise provide a useful tangible output. Note exemplary claim 1 which only recites software steps and does not produce a useful tangible and concrete *final* result. See MPEP 2106 [R-5] (partially recited above).
- 16.2 The step of "providing the second prediction result to the application system" does not yield a result that is concrete, useful, and tangible final result. Furthermore, the claim is drawn to software code per se, where receiving an input, using a data mining model, saving data, are all software instructions. Thus the claim is drawn to non-statutory subject matter.
- 16.3 Regarding claim 14, the "prediction engine" can be merely a collection of software programs, and therefore drawn to non-statutory subject matter. Furthermore, everything following the term "operable to" is drawn to intended use and is not given patentable weight as the steps are neither executed by a processor, nor stored on a medium.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

17. Claims 1, 3, 5-7, 11, 12, 14 and 20-31 are rejected under 35 U.S.C. 112, second paragraph, as being **indefinite** for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, the term "application system" fails to clearly set forth the metes and bounds of the claim.

What is an "application system"? Even evidenced by the Applicants' own citations (**Remarks dated**

3/5/07: page 9 and 10/17/2007 page 9 bottom to page 10 top) the term "application

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system" is not defined with clarity, deliberateness, and precision. The term is used in the Specification with indefinite meanings and vague "optional" features that may or may not be part of the system. Note exemplary added emphasis (added by Examiner), which clarify the deficiencies.

18. Claims not specifically mentioned are rejected by virtue of their dependency.

19. The Applicants are required to fix all other similar occurrences of the above-cited deficiencies.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

20. Claims 1, 3, 5-7, 11, 12, 14 and 20-31 are rejected under 35 U.S.C. 102(e) as being anticipated by

Tamayo (US 20020083067).

Tamayo discloses: 1. (Currently Amended) A computer-implemented method for providing prediction results to an application system during an interactive session with a user, the method comprising:

receiving a first input value set from the application system; selecting a first decision tree node by traversing one or more nodes of a decision tree using the first input value set; using the first decision tree node and the first input value set to compute a first prediction result; sending the first prediction result back to the application system; saving state information generated from the computation of the first prediction result (**Fig 17, 18 and descriptions, para 13, 7, 42;** **traversal of decision tree nodes is inherent in decision trees and in the way they function);**

receiving a second input value set from the application system; using the state information to select a second decision tree node by traversing the decision tree beginning at a decision tree node referenced by the state information; using the second decision tree node, the state

information, and the second input value set to compute a second prediction result (**para 42; Fig**

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17, 18 and descriptions; para 235: "two-stage process"); and

providing the second prediction result to the application system (Fig 10, note loop feeding back from 1042 to 1008; para 116, 117, 127).

Tamayo discloses: 3. (Currently Amended) The computer-implemented method of claim 1, wherein the second input value set includes both the first input value set and an additional set of input values, and wherein the method comprises using the decision tree along with the state information and the additional set of input values to compute the second prediction result (**para 225: "inputs", wherein each value set comprises at least one input**).

Tamayo discloses: 5. (Previously Amended) The computer-implemented method of claim 1, wherein the first input value set includes at least two input values (**para 225: "inputs", noting that second input value set may be void**).

Tamayo discloses: 6. (Previously Amended) The computer-implemented method of claim 1, wherein the second input value set includes at least two input values (**para 225: "inputs", noting that second input value set may be void**).

Tamayo discloses: 7. (Previously Amended) The computer-implemented method of claim 1, wherein the method comprises:

receiving the first input value set from the application system during an interactive session with a customer (**para 235**); and

receiving the second input value set from the application system during the interactive session with the customer (**para 235**)).

Tamayo discloses: 11. (Currently Amended) The computer-implemented method of claim 1, wherein the state information includes intermediate probability information (**para 235**).

Tamayo discloses: 12. (Original) The computer-implemented method of claim 1, wherein the first and second prediction results each specify a probability of customer chum (**para 241**).

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As per claims 14, 20, 21, note the rejection of claims 1, 11, 1 (respectively) above. The Instant Claims recite substantially same limitations as the above-rejected claims and are therefore rejected under same prior-art teachings.

As per claims 22-24, note the rejection of claim 7 above. The Instant Claims recite substantially same limitations as the above-rejected claim and are therefore rejected under same prior-art teachings.

As per claims 25-26, note the rejection of claims 11-12 above. The Instant Claims recite substantially same limitations as the above-rejected claims and are therefore rejected under same prior-art teachings.

As per claims 27-31, note the rejection of claims 1, 1, 24, 11, 26 (respectively) above. The Instant Claims recite substantially same limitations as the above-rejected claims and are therefore rejected under same prior-art teachings.

21. Claims 1, 3, 5-7, 11, 12, 14 and 20-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Eskandari (**US 20040034558**).

Eskandari discloses: 1. (Currently Amended) A computer-implemented method for providing prediction results to an application system during an interactive session with a user, the method comprising:

receiving a first input value set from the application system; selecting a first decision tree node by traversing one or more nodes of a decision tree using the first input value set; using the first decision tree node and the first input value set to compute a first prediction result; sending the first prediction result back to the application system; saving state information generated from the computation of the first prediction result (**para 49: decision tree used to predict customer churn; para 83; para 37; traversing down nodes of a tree is an inherent process in decision trees**);

receiving a second input value set from the application system; using the state information to select a second decision tree node by traversing the decision tree beginning at a decision tree node referenced by the state information; using the second decision tree node, the state information, and the second input value set to compute a second prediction result (**para 37: first using the subset then using the customer information to calculate churn for each**

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customer); and

providing the second prediction result to the application system (**para 37**).

Eskandari discloses: 3. (Currently Amended) The computer-implemented method of claim 1, wherein the second input value set includes both the first input value set and an additional set of input values, and wherein the method comprises using the decision tree along with the state information and the additional set of input values to compute the second prediction result (**para 37, wherein the churn model for each customer includes customer information as well as a subset of customer information which was used to determine a customer churn management model**).

Eskandari discloses: 5. (Previously Amended) The computer-implemented method of claim 1, wherein the first input value set includes at least two input values (**para 41: "several conditions"; para 27**).

Eskandari discloses: 6. (Previously Amended) The computer-implemented method of claim 1, wherein the second input value set includes at least two input values (**para 70 "weight parameters"; para 27; para 09**).

Eskandari discloses: 7. (Previously Amended) The computer-implemented method of claim 1, wherein the method comprises:

receiving the first input value set from the application system during an interactive session with a customer (**para 27, 28, 36**); and

receiving the second input value set from the application system during the interactive session with the customer (**para 27, 28, 36**).

Eskandari discloses: 11. (Currently Amended) The computer-implemented method of claim 1, wherein the state information includes intermediate probability information (**para 47**).

Eskandari discloses: 12. (Original) The computer-implemented method of claim 1, wherein the first and second prediction results each specify a probability of customer chum (**para 37**).

As per claims 14, 20, 21, note the rejection of claims 1, 11, 1 (respectively) above. The Instant Claims recite substantially same limitations as the above-rejected claims and are therefore rejected under same prior-art teachings.

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As per claims 22-24, note the rejection of claim 7 above. The Instant Claims recite substantially same limitations as the above-rejected claim and are therefore rejected under same prior-art teachings.

As per claims 25-26, note the rejection of claims 11-12 above. The Instant Claims recite substantially same limitations as the above-rejected claims and are therefore rejected under same prior-art teachings.

As per claims 27-31, note the rejection of claims 1, 1, 24, 11, 26 (respectively) above. The Instant Claims recite substantially same limitations as the above-rejected claims and are therefore rejected under same prior-art teachings.

Support for Amendments and Newly Added Claims

22. Applicants are respectfully requested, in the event of an amendment to claims or submission of new claims, that such claims and their limitations be directly mapped to the specification, which provides support for the subject matter. This will assist in expediting compact prosecution. MPEP 714.02 recites: "Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP § 2163.06. An amendment which does not comply with the provisions of 37 CFR 1.121(b), (c), (d), and (h) may be held not fully responsive. See MPEP § 714." **Amendments not pointing to specific support in the disclosure may be deemed as not complying with provisions of 37 C.F.R. 1.131(b), (c), (d), and (h) and therefore held not fully responsive.** Generic statements such as "Applicants believe no new matter has been introduced" may be deemed insufficient.

Requests for Interview

23. In accordance with 37 CFR 1.133(a)(3), requests for interview must be made in advance.

Interview requests are to be made by telephone (571-272-8634) call or FAX (571-273-8634).

Applicants must provide a detailed agenda as to what will be discussed (generic statement such as "discuss §102 rejection" or "discuss rejections of claims 1-3" may be denied interview).

The detail agenda along with any proposed amendments is to be written on a PTOL-413A or a custom form and should be faxed (or emailed, subject to MPEP 713.01.I / MPEP 502.03) to the Examiner at least 3 days prior to the scheduled interview.

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24. Interview requests submitted within amendments may be denied because the Examiner was not notified, in advance, of the Applicant Initiated Interview Request and due to time constraints may not be able to review the interview request to prior to the mailing of the next Office Action.

Conclusion

25. All claims are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Silver whose telephone number is (571) 272-8634. The examiner can normally be reached on Monday thru Friday, 10am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on 571-272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/ DS /
David Silver, Patent Examiner
Art Unit 2128


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